of Beirut

# AMERICAN UNIVERSITY OBSERVATORY

11

## MONTHLY BULLETIN

## METEOROLOGICAL SECTION

LIBRARY
MAY 8 1961
WEATHER BUREAU

FRANS BRUIN : DIRECTOR

HALIM HOURANI : OBSERVER

**BEIRUT, LEBANON**

Latitude : 33° 54' 22" N.

Longitude : $2^h$ $21^m$ $52^s$, 7 E.

February - 1961

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# FEBRUARY 1961

## METEOROLOGICAL REGISTER

| Date | Barometer reduced to O°C Sea level and 45° Latitude 700 mm. †... | | | | Thermometer Degrees Centigrade | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 8:30 | 41:30 | 20:30 | Mean | Max. | Min. | 8:30 | 14:30 | 20:30 | Mean |
| 1 | 57.0 | 56.9 | 57.7 | 57.2 | 14.2 | 9.3 | 13.1 | 11.0 | 11.5 | 11.9 |
| 2 | 60.6 | 61.0 | 61.8 | 61.1 | 16.4 | 11.5 | 12.5 | 15.0 | 11.5 | 13.0 |
| 3 | 61.8 | 61.5 | 62.6 | 62.0 | 16.7 | 13.0 | 13.0 | 16.5 | 15.5 | 15.0 |
| 4 | 63.2 | 61.5 | 62.0 | 62.2 | 20.0 | 13.4 | 17.0 | 18.5 | 15.0 | 16.8 |
| 5 | 59.5 | 57.3 | 56.5 | 57.8 | 22.2 | 11.2 | 16.5 | 19.5 | 15.5 | 17.2 |
| 6 | 57.3 | 57.8 | 58.8 | 58.0 | 16.9 | 10.7 | 12.3 | 15.7 | 12.5 | 13.5 |
| 7 | 58.0 | 57.1 | 58.0 | 57.7 | 18.0 | 12.9 | 14.2 | 16.0 | 15.0 | 15.1 |
| 8 | 56.5 | 59.2 | 63.5 | 59.7 | 17.7 | 12.1 | 15.4 | 16.8 | 16.0 | 16.1 |
| 9 | 65.7 | 64.7 | 64.3 | 64.9 | 17.5 | 12.0 | 15.0 | 16.6 | 13.0 | 14.9 |
| 10 | 60.0 | 58.0 | 59.6 | 59.2 | 19.5 | 9.0 | 14.0 | 17.8 | 11.5 | 14.4 |
| 11 | 61.8 | 62.3 | 63.5 | 62.5 | 17.2 | 10.3 | 10.2 | 15.0 | 14.2 | 13.1 |
| 12 | 60.8 | 57.4 | 59.3 | 59.2 | 20.9 | 9.7 | 14.6 | 18.0 | 13.7 | 15.4 |
| 13 | 59.2 | 59.7 | 60.9 | 59.9 | 18.2 | 9.2 | 12.0 | 11.5 | 11.5 | 11.7 |
| 14 | 60.3 | 58.7 | 58.5 | 59.2 | 12.0 | 9.0 | 9.6 | 10.2 | 10.5 | 10.1 |
| 15 | 61.3 | 62.8 | 62.0 | 62.0 | 14.8 | 6.9 | 13.6 | 12.6 | 11.0 | 12.4 |
| 16 | 60.5 | 60.7 | 65.6 | 62.3 | 11.0 | 8.2 | 8.9 | 10.1 | 9.0 | 9.3 |
| 17 | 67.3 | 66.0 | 66.1 | 66.5 | 16.9 | 11.0 | 11.4 | 15.4 | 12.3 | 13.0 |
| 18 | 64.7 | 63.1 | 64.3 | 64.0 | 17.6 | 9.4 | 13.0 | 15.0 | 12.0 | 13.3 |
| 19 | 65.6 | 65.7 | 67.8 | 66.4 | 13.2 | 9.6 | 11.0 | 13.0 | 12.0 | 12.0 |
| 20 | 70.0 | 70.2 | 71.7 | 70.6 | 14.1 | 9.8 | 12.0 | 13.4 | 11.0 | 12.1 |
| 21 | 72.4 | 70.6 | 71.1 | 71.4 | 15.2 | 10.6 | 11.7 | 14.4 | 12.5 | 12.9 |
| 22 | 69.0 | 66.8 | 65.7 | 67.2 | 16.3 | 12.0 | 12.8 | 15.6 | 12.5 | 13.6 |
| 23 | 63.4 | 61.5 | 62.0 | 62.3 | 19.2 | 10.5 | 14.3 | 17.6 | 14.5 | 15.5 |
| 24 | 62.9 | 62.8 | 64.2 | 63.3 | 17.9 | 9.7 | 13.5 | 16.3 | 13.0 | 14.3 |
| 25 | 64.6 | 64.5 | 64.9 | 64.7 | 17.6 | 10.5 | 12.7 | 13.7 | 11.0 | 12.5 |
| 26 | 64.1 | 62.6 | 63.6 | 63.4 | 15.2 | 9.8 | 12.5 | 15.0 | 10.0 | 12.5 |
| 27 | 64.0 | 64.7 | 66.2 | 65.0 | 12.6 | 7.5 | 11.4 | 10.0 | 8.5 | 10.0 |
| 28 | 66.1 | 66.3 | 67.4 | 66.6 | 11.2 | 6.6 | 8.3 | 7.2 | 7.0 | 7.5 |
| 29 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 31 | | | | | | | | | | |
| | 62.77 | 62.19 | 63.20 | 62.72 | 16.43 | 10.19 | 12.73 | 14.55 | 12.26 | 13.18 |

Barometer, range 772.4 mm — 756.5 mm
» » 71-yrs. average 761.98 mm.
Thermometer, range 22.2 °C — 6.9 °C
« » 82-yrs. average 14.0 °C
Rain. total for month 268.12 mm
» » 82-yrs. average for month 157.7 mm
« » total from Sept. 1st. 736.95 mm
« » 82-yrs. average from Sept. 1st. 724.34 mm

# FEBRUARY 1961
# METEOROLOGICAL REGISTRE

| Date | Pressure of Water Vapour Millibars | | | | Relative Humidity per cent. | | | | sun. | Wind per day | Rain |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 8 30 | 14:30 | 20 30 | Mean | 8:30 | 14:30 | 20:30 | Mean | Hrs. | Kmsr | m. m. |
| 1 | 12.0 | 12.2 | 11.0 | 11.7 | 80 | 93 | 80 | 84 | 0.0 | 95 | 13.60 |
| 2 | 10.6 | 9.9 | 8.1 | 9.5 | 71 | 58 | 59 | 63 | 9.3 | 60 | 12.60 |
| 3 | 8.6 | 11.2 | 11.7 | 10.5 | 58 | 59 | 66 | 61 | 0.5 | 296 | 2.90 |
| 4 | 10.0 | 11.8 | 9.6 | 10.5 | 51 | 55 | 56 | 54 | 9.0 | 259 | 2.50 |
| 5 | 9.5 | 12.1 | 11.2 | 10.9 | 50 | 53 | 63 | 55 | 7.5 | 19 | |
| 6 | 11.6 | 10.5 | 8.2 | 10.1 | 81 | 59 | 58 | 66 | 4.0 | 254 | 13.85 |
| 7 | 10.3 | 11.1 | 7.3 | 9.6 | 63 | 61 | 43 | 56 | 0.5 | 187 | |
| 8 | 8.6 | 9.4 | 12.6 | 10.2 | 49 | 49 | 69 | 56 | 1.4 | 291 | 0.50 |
| 9 | 12.3 | 11.3 | 9.3 | 11.0 | 72 | 60 | 62 | 65 | 5.4 | 175 | 7.32 |
| 10 | 10.5 | 10.1 | 11.5 | 10.7 | 65 | 49 | 87 | 67 | 6.3 | 119 | 34.80 |
| 11 | 11.8 | 12.5 | 11.4 | 11.9 | 94 | 73 | 70 | 79 | 5.8 | 174 | 11.95 |
| 12 | 11.0 | 8.2 | 8.2 | 9.1 | 66 | 39 | 53 | 53 | 6.6 | 209 | |
| 13 | 10.2 | 11.6 | 10.4 | 10.7 | 71 | 85 | 75 | 77 | 1.9 | 124 | 11.63 |
| 14 | 11.3 | 12.1 | 9.6 | 11.0 | 94 | 97 | 74 | 88 | 0.0 | 142 | 63.36 |
| 15 | 11.8 | 10.1 | 11.5 | 11.1 | 76 | 69 | 87 | 77 | 2.6 | 169 | 14.50 |
| 16 | 9.5 | 10.5 | 8.7 | 9.6 | 83 | 84 | 76 | 81 | 1.7 | 143 | 30.93 |
| 17 | 10.0 | 11.2 | 11.0 | 10.7 | 73 | 64 | 76 | 71 | 7.1 | 68 | 1.40 |
| 18 | 9.0 | 8.6 | 11.7 | 9.8 | 60 | 51 | 83 | 65 | 6.1 | 74 | 8.10 |
| 19 | 9.2 | 9.0 | 5.6 | 7.9 | 70 | 60 | 41 | 57 | 8.0 | 282 | 8.15 |
| 20 | 4.8 | 5.4 | 5.3 | 5.2 | 35 | 36 | 41 | 37 | 10.1 | 97 | |
| 21 | 6.6 | 7.8 | 9.6 | 8.0 | 50 | 48 | 65 | 54 | 10.2 | 95 | |
| 22 | 9.1 | 9.7 | 7.9 | 8.9 | 62 | 55 | 54 | 57 | 10.2 | 27 | |
| 23 | 7.0 | 11.3 | 8.5 | 8.9 | 43 | 57 | 52 | 51 | 10.3 | 21 | |
| 24 | 10.4 | 10.7 | 11.0 | 10.7 | 66 | 57 | 72 | 65 | 7.8 | 84 | 5.03 |
| 25 | 10.5 | 12.8 | 11.5 | 11.6 | 70 | 82 | 87 | 80 | 3.5 | 161 | 20.10 |
| 26 | 11.2 | 11.6 | 10.7 | 11.2 | 76 | 69 | 87 | 77 | 2.0 | 53 | 4.60 |
| 27 | 7.7 | 6.7 | 4.5 | 6.3 | 57 | 56 | 39 | 51 | 3.3 | 338 | |
| 28 | 6.5 | 6.9 | 5.6 | 6.3 | 62 | 68 | 60 | 63 | 5.3 | 84 | 0.30 |
| 29 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 31 | | | | | | | | | | | |
| | 9.70 | 10.22 | 9.40 | 9.77 | 66.0 | 62.3 | 65.5 | 64.6 | 5.23 | 146.43 | 9.58 |

Height of Barometer above sea level : 33.7 meters.
Height of Thermometers above ground :
Dry and wet 1.25 m. ; Max. 1.30 m. ; Min. 1.50 m.
Hygrometric date from readinge of wet and dry bulb thermometers exposed in a Stevenson screen, reduced according to M. O. 265.
Rim of Rain Gauge : above groend 0.66 m. ; above sea level 30.31 m.
Rainfall is read at 20.30 for the preceding 24 hours.
71 year averages are for period, 1875 - 1943

# FEBRUARY 1961

## METEOROLOGICAL REGISTER

| Date | Clouds clear—0 Overcast—10 | | | | beaufort, scale Direction and force of wind | | | Sea | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | 8:30 | 14:30 | 20:30 | Mean | 8:30 | 14:30 | 20:30 | | |
| 1 | 10cu-ni | 10st-ni | 10cu-st | 10.0 | 3n | 1ne | 1ne | light | |
| 2 | 4cu-st | 4st-ci | 8cu-st | 5.3 | 1sw | 1sw | 1sw | ,, | |
| 3 | 10cu-st | 10cu-st | 10cu-ni | 10.0 | 5sw | 4sw | 4sw | slight | |
| 4 | 5cu-st | 4ci-st | 2ci | 3.7 | 3sw | 2sw | 1sw | ,, | |
| 5 | 0 | 0 | 0 | 0.0 | 1s | 1sw | 1sw | light | |
| 6 | 10st-ni | 8cu-st | 0 | 6.0 | 4sw | 5sw | 1sw | light | Hail, Thunder, at 11:00 a.m |
| 7 | 10st | 10ci-st | 10st-ci | 10.0 | 3sw | 3sw | 1sw | moderate | H; all day |
| 8 | 10st | 10ci-st | 10st-ci | 10.0 | 4s | 5ne | 2sw | slight | |
| 9 | 10st | 4cu-st | 0 | 4.7 | 3sw | 3sw | 1sw | light | |
| 10 | 7ci | 10st-ni | 10st | 9.0 | 2e | 4w | 3w | ,, | T; p.m. |
| 11 | 9st | 0 | 10st | 6.3 | 2s | 3sw | 3sw | light | |
| 12 | 2cu | 10st | 0 | 4.0 | 1e | 5sw | 3sw | ,, | |
| 13 | 9st-ci | 10ni | 10st | 9.7 | 2se | 4sw | 2sw | ,, | |
| 14 | 10ni | 10ni | 10st | 10.0 | 2sw | 3sw | 1sw | ,, | lightning thunder a.m |
| 15 | 9cu-st | 10cu-st | 10ni | 9.7 | 3sw | 2s | 2s | ,, | |
| 16 | 10ni | 10st | 7st | 9.0 | 4se | 2w | 1sw | light | |
| 17 | 0 | 10st | 8st | 6.0 | 3s | 3sw | 1sw | ,, | |
| 18 | 10ci-st | 7st-ci | 10st-ni | 9.0 | 2s | 1sw | 1sw | ,, | |
| 19 | 10st-ni | 2cu-ci | 0 | 4.0 | 1sw | 3ne | 3ne | slight | |
| 20 | 0 | 0 | 0 | 0.0 | 2e | 4ne | 2ne | light | |
| 21 | 0 | 0 | 0 | 0.0 | 2e | 3ne | 2ne | light | |
| 22 | 0 | 0 | 5ci | 1.7 | 2e | 2ne | 1ne | ,, | lunar hallow |
| 23 | 0 | 0 | 8cu | 2.7 | 1sw | 2w | 1sw | ,, | |
| 24 | 5cu | 8st-cu | 5cu-st | 6.0 | 2e | 2sw | 1sw | ,, | |
| 25 | 10st | 10st-ni | 8cu-st | 9.3 | 3sw | 1sw | 1sw | ,, | |
| 26 | 10cu-st | 8cu-st | 4cu | 7.3 | 2nw | 2w | 1sw | light | |
| 27 | 10st | 10st | 9cu-st | 9.7 | 5n | 5ne | 4ne | ,, | |
| 28 | 10st-ni | 10st | 8cu-st | 9.3 | 4ne | 2sw | 1sw | ,, | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |
| | | | | 6.51 | | | | | |

Abbreviation : G = gale ; H = haze ; M = mist ; T = Thunderstorm ; D = dew
W = strong wind ; Tr = trace of rain

### Number of Daily Wind Observations

| Time | N | NE | E | SE | S | SW | W | NW | Calm | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 8:30 | 2 | 1 | 6 | 2 | 5 | 11 | 0 | 1 | 0 | 28 |
| 14:30 | 0 | 7 | 0 | 0 | 1 | 16 | 4 | 0 | 0 | 28 |
| 20:30 | 0 | 6 | 0 | 0 | 1 | 20 | 1 | 0 | 0 | 28 |
| Total | 2 | 14 | 6 | 2 | 7 | 47 | 5 | 1 | 0 | 84 |

Number of days with rain 20, fog 0, Thunderstorms 1, gale 0

71-yrs. average number of days with rain during month 13.9